

FACE INVESTIGATION

SUBJECT: Part-time farmer Dies when Tractor Rolls Over on Hillside and Pins Him Underneath

SUMMARY:

A 51-year-old male, part-time farmer (the victim) was crushed when a farm tractor overturned and pinned him. He was driving the tractor from a field to the farmyard, and turned off the driveway to pass around an automobile parked in the tractor's path. At the point where he left the driveway, the grassy hillside sloped approximately 30 degrees downhill. To maneuver around the car, the farmer started to drive in a curve down and across the slope of the hill. The tractor, which was not equipped with roll over protection structures (ROPS) or a seat belt, overturned on its side, pinning the farmer underneath. The farmer's wife was in the farmyard, heard a crashing noise, and turned to see the victim pinned under the overturned tractor. She drove her auto toward a neighbor's home to summon help, but skidded into a ditch on the way. The neighbor was passing by in his vehicle at that time, and stopped to assist the victim's wife. Emergency services were called, and additional neighbors arrived to help free the victim from underneath the tractor. The coroner pronounced the victim dead at the scene, and his wife was transported to the hospital for evaluation and treatment of injuries she incurred when her automobile left the road. The FACE investigator concluded that, to prevent similar occurrences, farmers and other tractor operators should:

- ! evaluate hazards and take precautions to avoid driving tractors across steep slopes.**
- ! drive tractors that have been equipped with rollover protection structures (ROPS) and an operator restraint system**

In addition, farm family members should:

- ! prepare for emergency situations by collecting information on community emergency response resources and maintaining a phone list for quick access.**

INTRODUCTION:

On July 8, 1995, a 51-year-old part-time farmer died when the tractor he was driving overturned and pinned him underneath. The Wisconsin FACE field investigator learned of the incident on July 10, 1995, from a newspaper article. The investigation was initiated on July 11, 1995, with an interview with the deputy sheriff, and followed up with coroner's and limited family interviews, receipt of sheriff's reports and photos, and a report from the state climatologist.

The farmer and his wife had moved to the farm from an urban area about two years before the incident, and also had employment outside of the farm operation. Due to the limitations of the family interviews, it is unknown what agricultural products were produced on the farm, or if the farmer received any training on tractor operation.

The state climatologist reported that the high temperature of the day was 77EF at about 5:00 P.M., with no

precipitation.

INVESTIGATION:

On the afternoon of the incident, the farmer was using a farm tractor with a wide front wheel configuration. It was not equipped with ROPS nor an operator restraint system. He had been working alone in a field near the farmyard for several hours, and was returning to the farmyard late in the afternoon. He drove the tractor along a driveway carved into a hillside with an approximately 30 degree slope. When he reached the point where a car was parked on the driveway, he started to drive in a curve down and across the hillside to go around the car. During this maneuver, the tractor overturned on its side, pinning the victim underneath. The farmer's wife was in the farmyard, heard a crashing noise, and turned to see the victim pinned under the overturned tractor. She immediately got into her auto, started driving toward a neighbor's home to summon help, but skidded into a ditch along the way. The neighbor was passing by in his vehicle at that time, and stopped to assist the victim's wife. Emergency services were called, and additional neighbors arrived to help free the victim from underneath the tractor. The rescuers noted no signs of life so the coroner was called to the scene, and pronounced the victim dead. The victim's wife was transported to the hospital for treatment of injuries she incurred when her automobile left the road.

CAUSE OF DEATH: The death certificate lists the cause of death as anoxia, with crushing chest injury from a farm tractor accident.

RECOMMENDATIONS/DISCUSSION

Recommendation #1: Farm tractor operators should evaluate hazards and take precautions to avoid driving tractors across steep slopes.

Discussion: Before operating a farm tractor, the operator should understand factors which can alter a tractor's center of gravity and cause it to overturn. These factors include, but are not limited to, the tractor's wheel spacing and configuration, weight, the elevation of loads, height of hitch points, and the degree of slope of hillsides. Farm tractor operators should avoid driving tractors on steep hillsides whenever possible by driving only on level drives or by choosing another route. In this case, the victim drove off the level driveway onto the steeply sloped hillside to go around the car. This maneuver shifted the center of gravity from the middle of the tractor to a point on the uphill side of the tractor, causing it to tip. If he had moved the car from the driveway instead of driving on the hillside, the incident would have been prevented. Specific information about avoiding tractor rollovers can be obtained from the tractor manufacturer or county extension agents.

Recommendation #2: Farm tractor operators should drive tractors that have been equipped with rollover protection structures (ROPS) and an operator restraint system

Discussion: Rollover protection structures along with operator restraint systems will prevent tractor operators from

serious injury and death in the event of a tractor rollover. OSHA standards require ROPS and seatbelts on agricultural tractors manufactured after October 25, 1976. Older tractors should be retrofitted with ROPS and seatbelts properly designed, manufactured and installed to meet the OSHA standards. OSHA requirements do not apply to family farms like the one in this incident, however all tractor operators should be protected from serious injury and death from tractor rollovers by fitting their tractors with the protective equipment.

Recommendation #3: Farm family members should prepare for emergency situations by collecting information on community emergency response resources and maintaining a phone list for quick access.

Discussion: Farmers and farm workers may need immediate assistance from individuals who have been trained to assist with emergency situations on farms. In addition, family members and other rescuers may be at risk for injury to themselves if attention isn't paid to safe rescue procedures. Farmers and their families can prepare to deal quickly, effectively, and safely with emergencies by becoming familiar with the local emergency services and posting the phone numbers near each of the farm's phones. The victim's wife in this incident was injured when she drove into a ditch while driving to seek help for her husband. Her injuries would have been prevented if she had called for assistance instead of driving toward the neighbor's home.

REFERENCES

29CFR 1928.51 (b) Code of Federal Regulations, U.S. Government Printing Office, Office of the Federal Register.